

APPROVED	O. G. FIG.	
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CCA GCA ACC AAT GAT GCC CGT T-TAMRA-3'  
CA GCA ACC AAT GAT GCC CGT T-TAMRA-3'

CCA GCA AGC ACT GAT GCC TGT T-TAMRA-3'  
CA GCA AGC ACT GAT GCC TGT T-TAMRA-3'

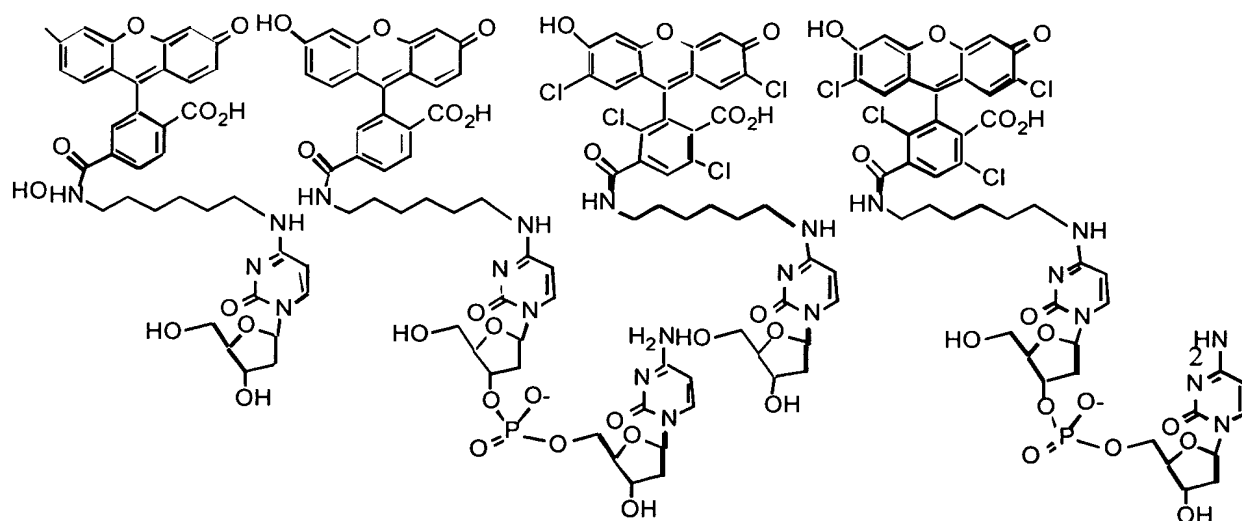
**Fig. 1A**

Fluorescent Dyes

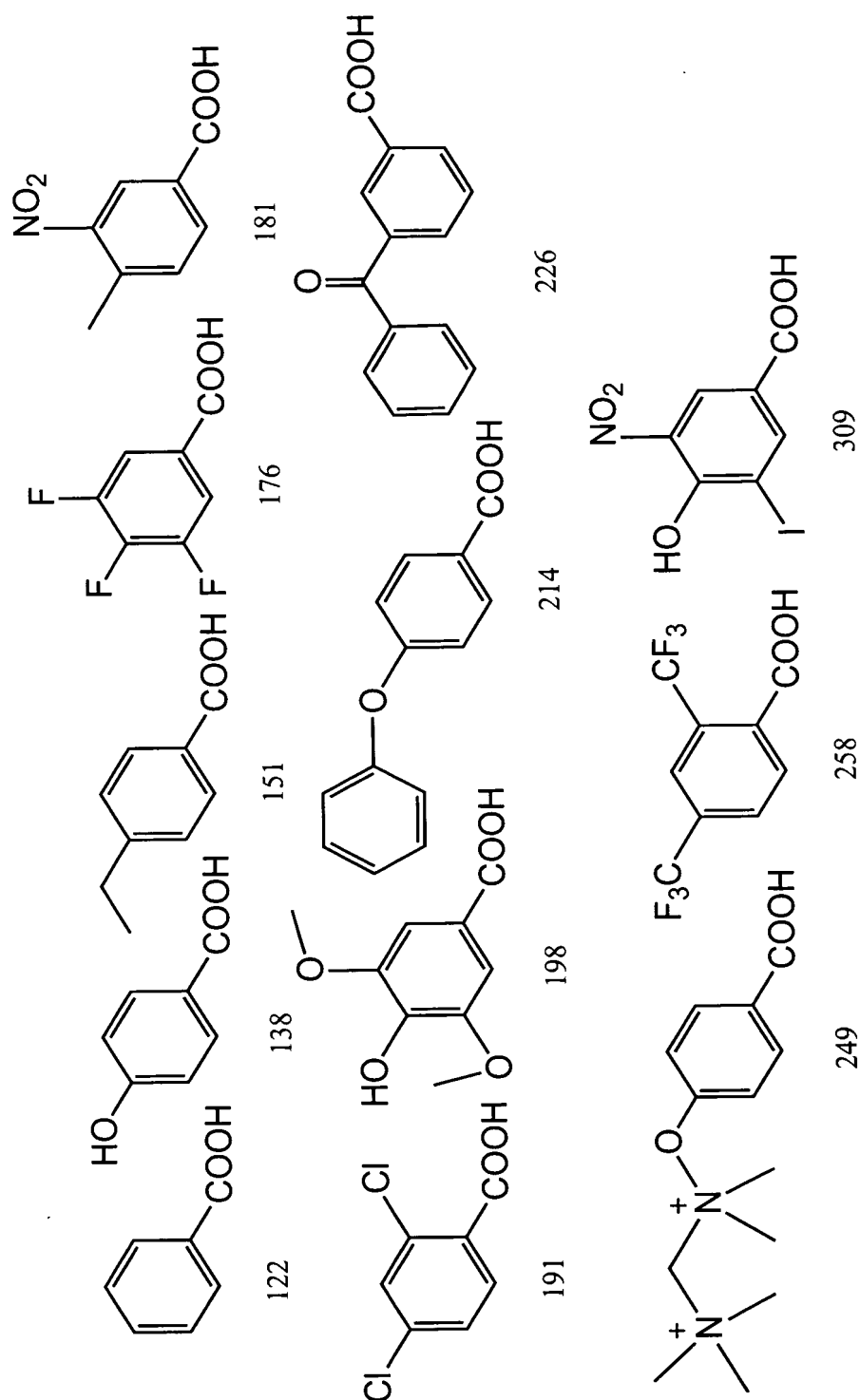
	<u>Absorbance Maxima</u>	<u>Emission Maxima</u>
Fluorescein	494nm	525nm
Tetrachloro fluorescein	521nm	536nm
TAMRA	565nm	580nm

**Fig. 1B**

Cleaved Fragments:

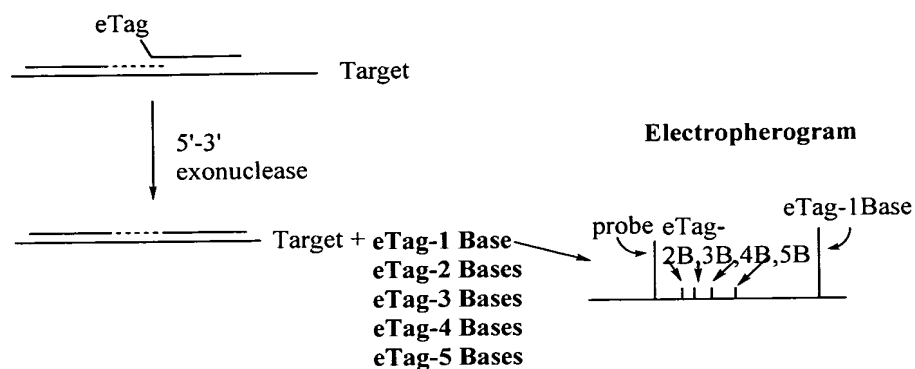


**Fig. 1C**

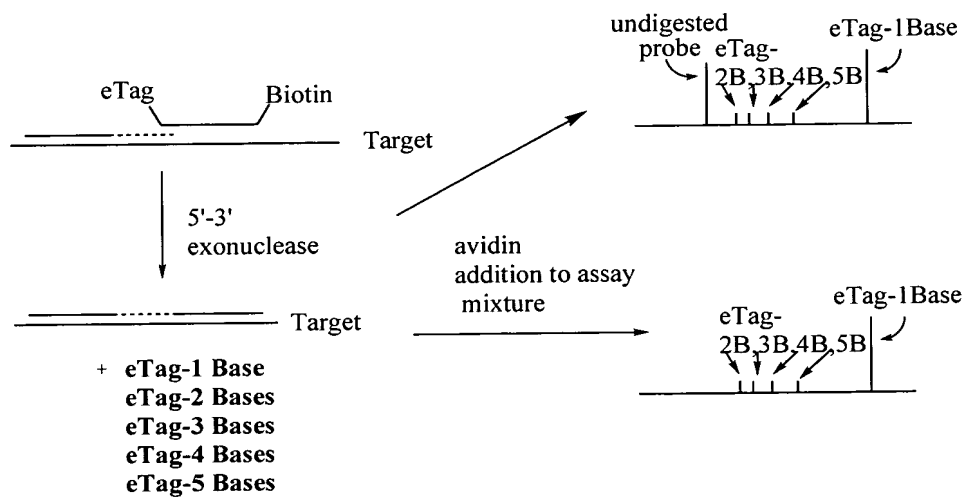


**Fig. 2**

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**Fig. 3A**



**Fig. 3B**

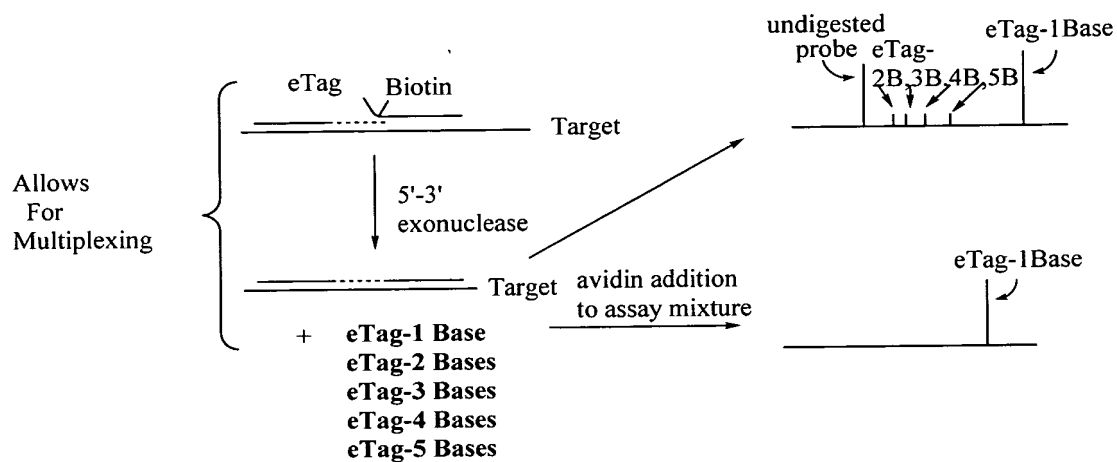


Fig. 3C

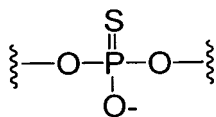
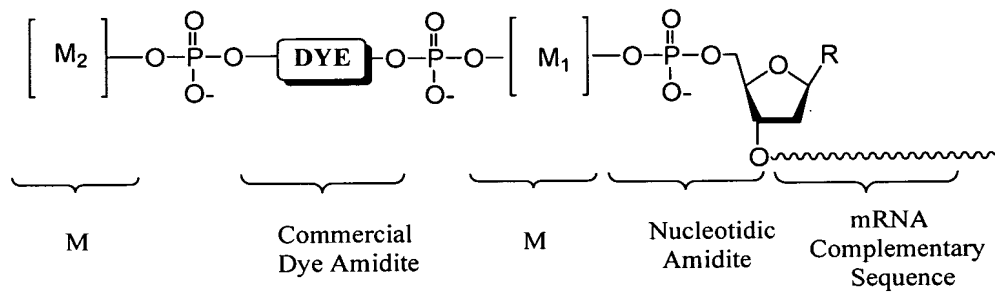
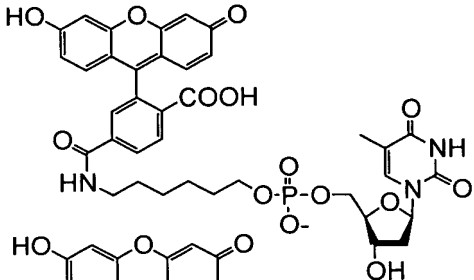
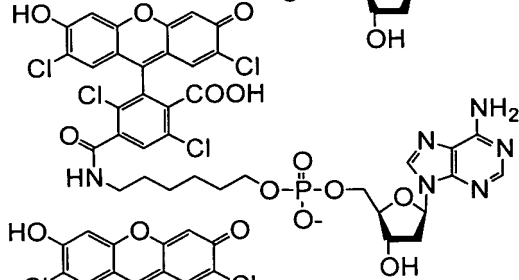
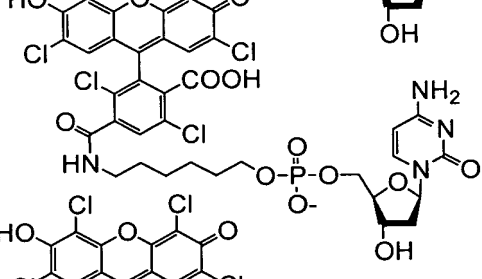
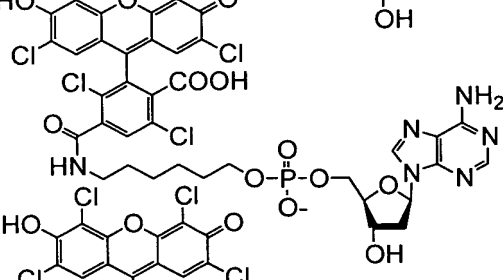
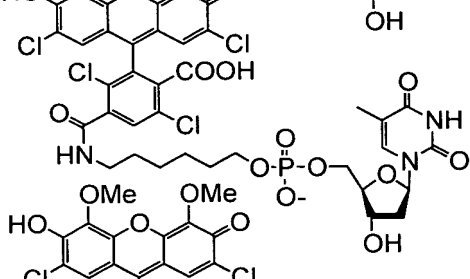
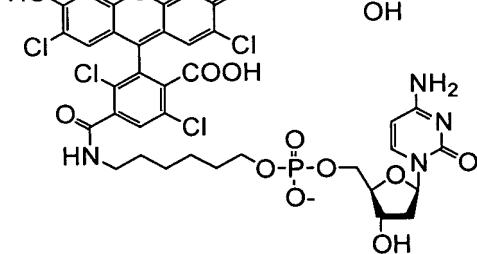


Fig. 3D

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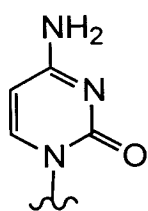
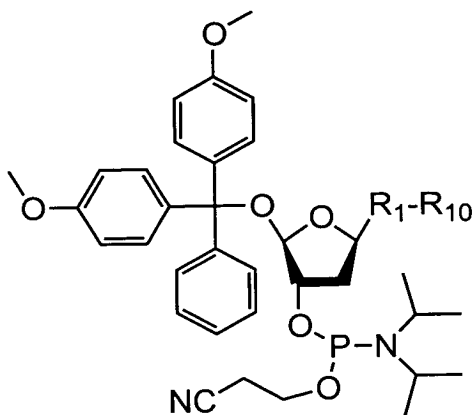
**Fig. 4**

<u>e-tag Reporter</u>	<u>Elution Time on CE, min</u>	<u>Mass</u>
	6.4	778
	7.1	925
	7.3	901
	7.7	994
	8.0	985
	9.25	961

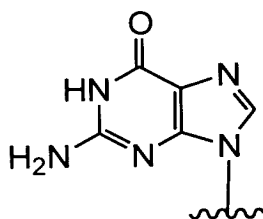
**Fig. 5**

e-tag Reporter	Charge	Elution Time, min
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_3\text{C}_3\text{C}_3\text{C}_3\text{C}_3\text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-8	12.1*
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_6\text{C}_6\text{C}_6\text{C}_6\text{C}_6\text{C}_6\text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-9	12.7
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_6\text{C}_6\text{C}_6\text{C}_6\text{C}_6\text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-8	12.8
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_6\text{C}_6\text{C}_6\text{C}_6\text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-7	13.1
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_3\text{C}_3\text{C}_9\text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-6	13.0
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_6\text{C}_6\text{C}_6\text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-6	13.4
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_3\text{C}_3\text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-5	12.8*
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_3\text{C}_9\text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-5	13.2*
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_9\text{C}_9\text{---} \text{dC} \\ \parallel \\ \text{O}^- \end{array}$	-5	14.8
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{TTTdC} \\ \parallel \\ \text{O}^- \end{array}$	-6	17.3
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{TTdC} \\ \parallel \\ \text{O}^- \end{array}$	-5	17.0
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{C}_9\text{---} \text{dT} \\ \parallel \\ \text{O}^- \end{array}$	-4	15.2*
$\begin{array}{c} \text{O} \\ \parallel \\ \text{HN} \text{---} \text{Fluorescein} \\ \text{---} \text{O} \text{---} \text{P} \text{---} \text{O} \text{---} \text{TdC} \\ \parallel \\ \text{O}^- \end{array}$	-4	16.5

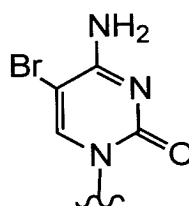
Fig. 6



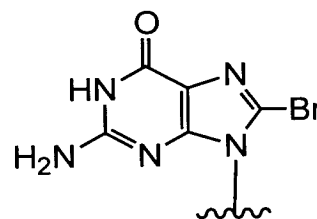
227



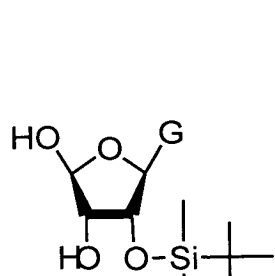
267



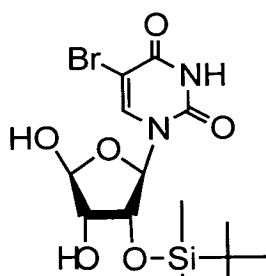
306



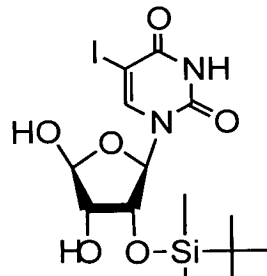
346



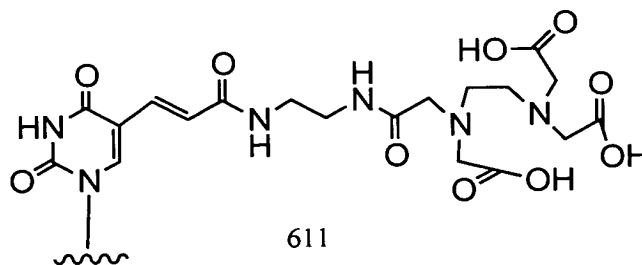
396



436



484

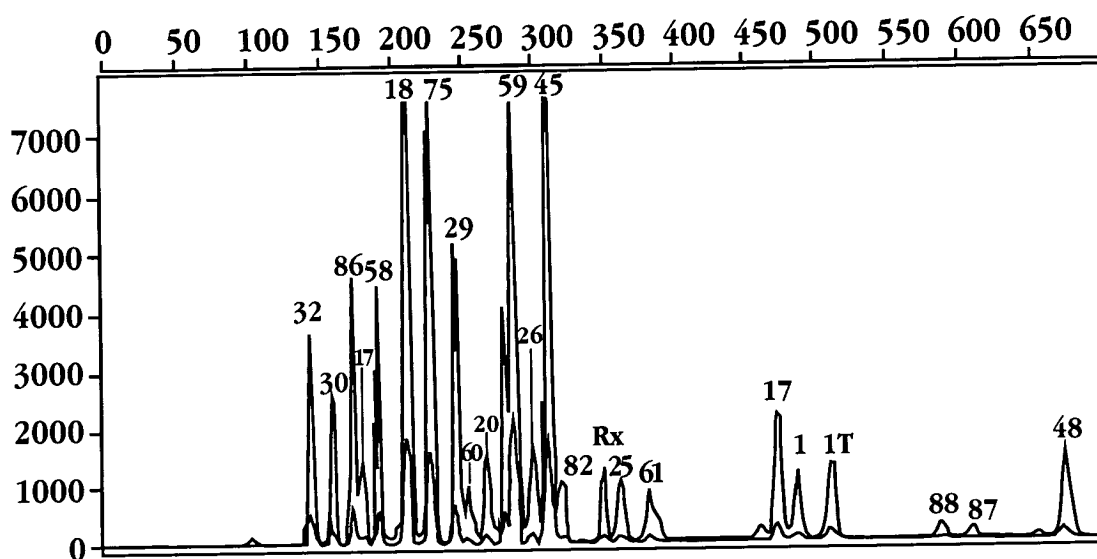


611

**Fig. 7**

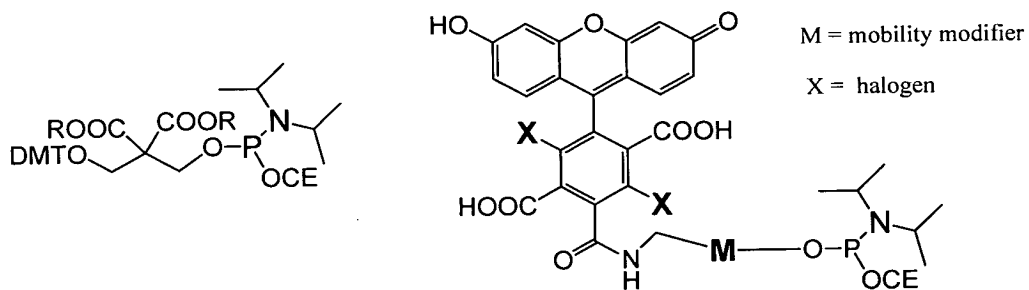


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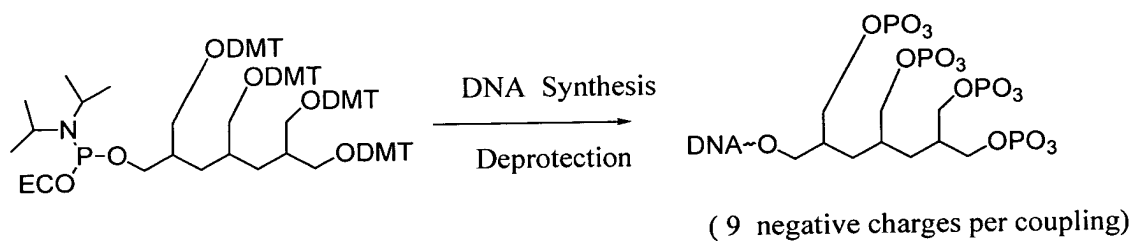
**Fig. 8**

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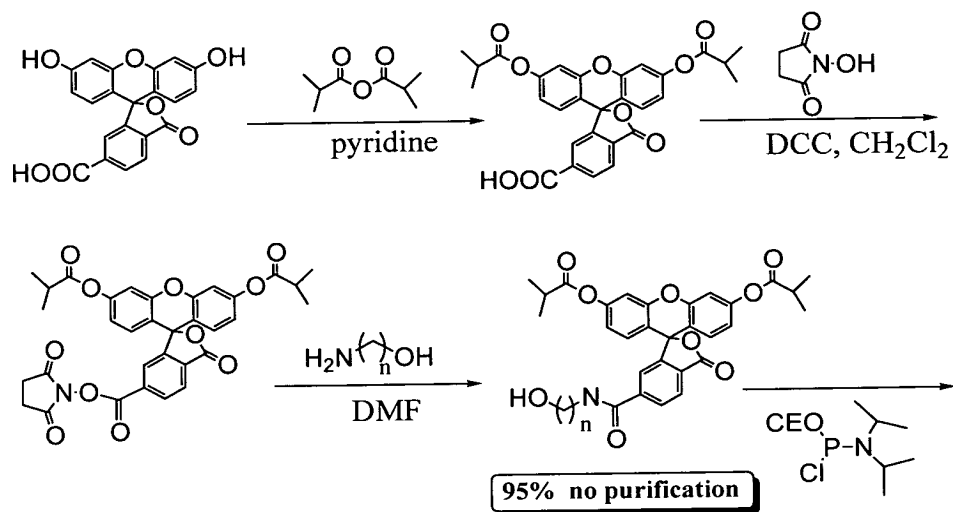


**Fig. 9**

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**Fig. 10**



**Fig. 11**

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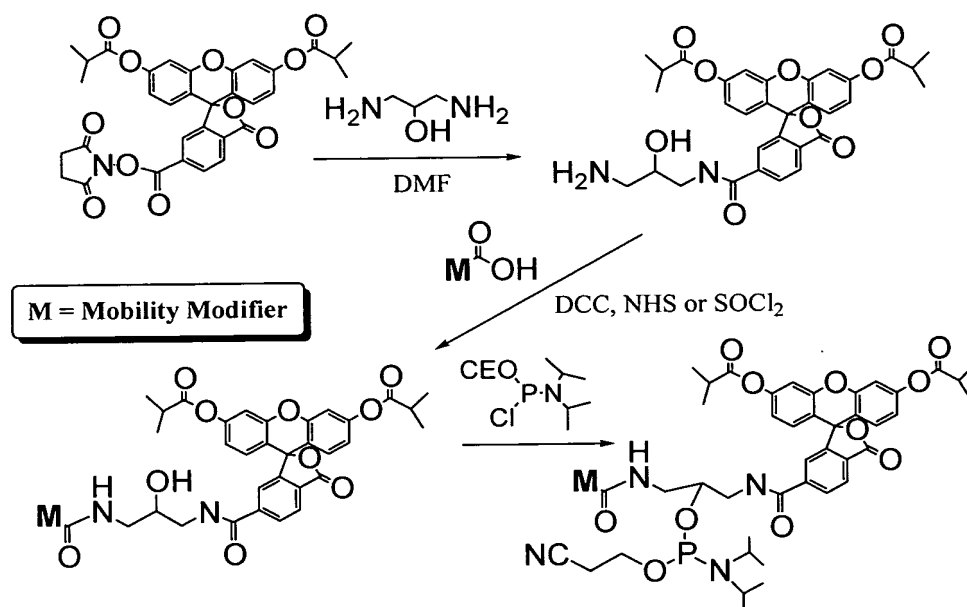


Fig. 12

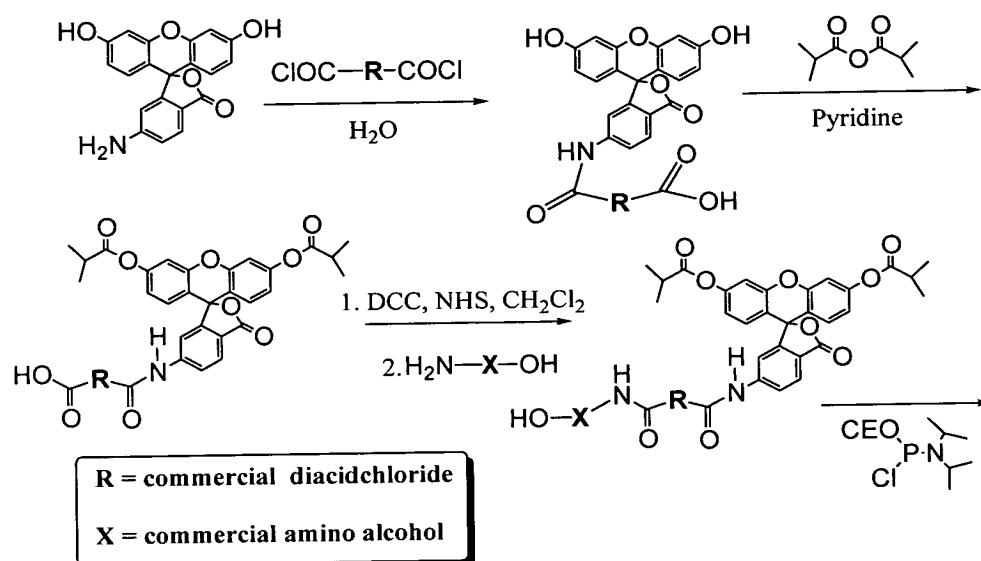
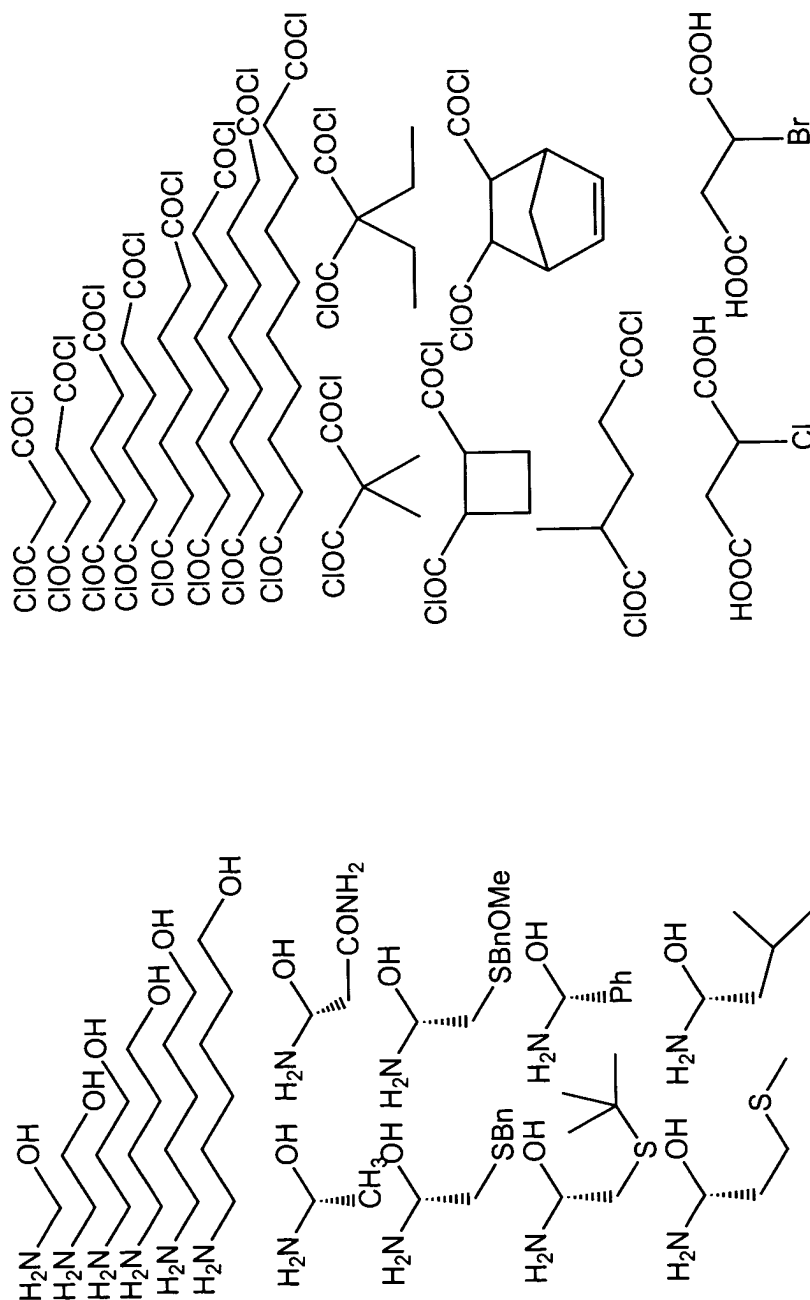
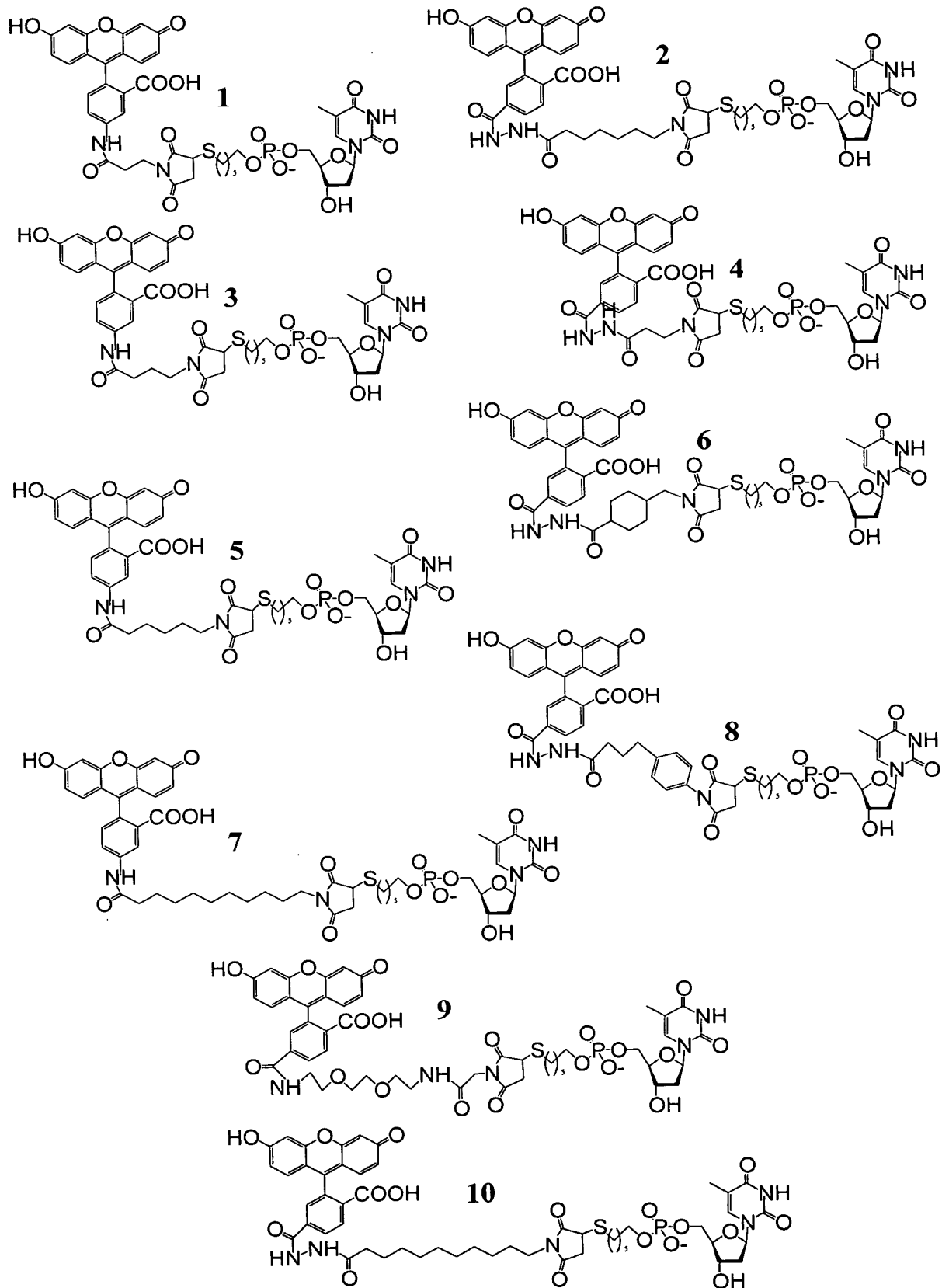


Fig. 13



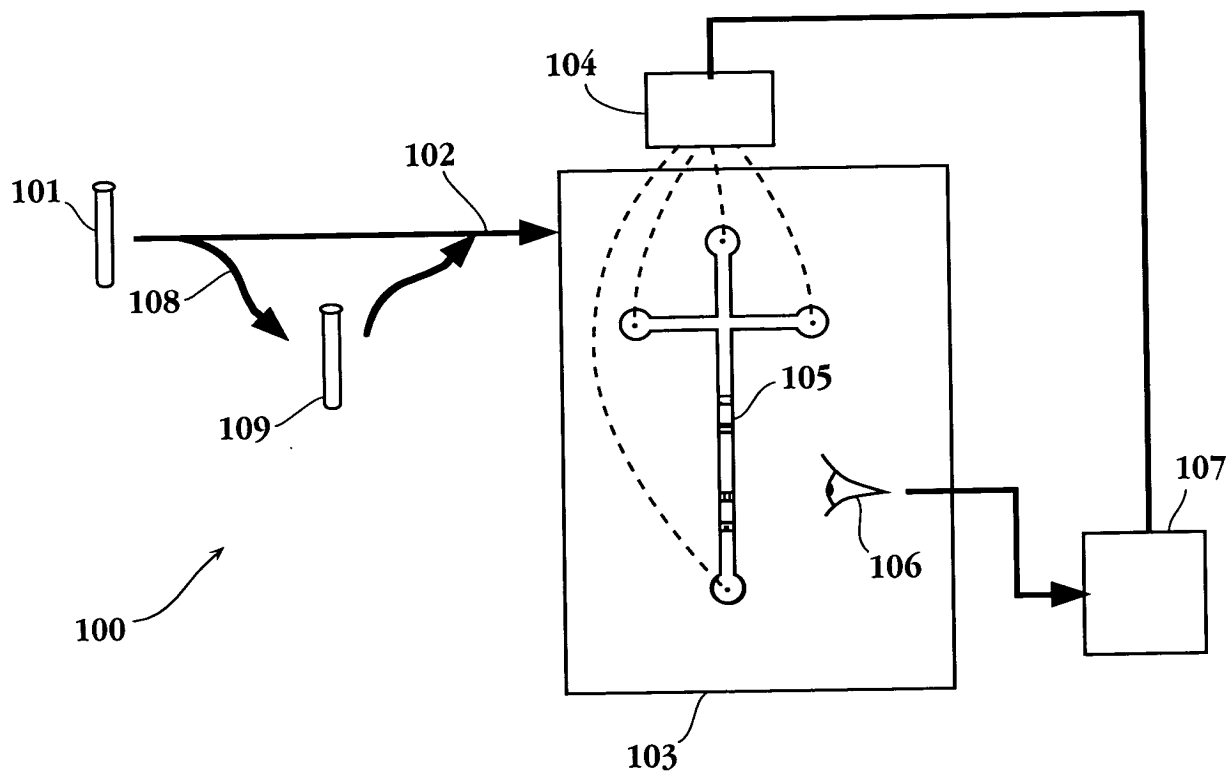
**Fig. 14**



**Fig. 15**



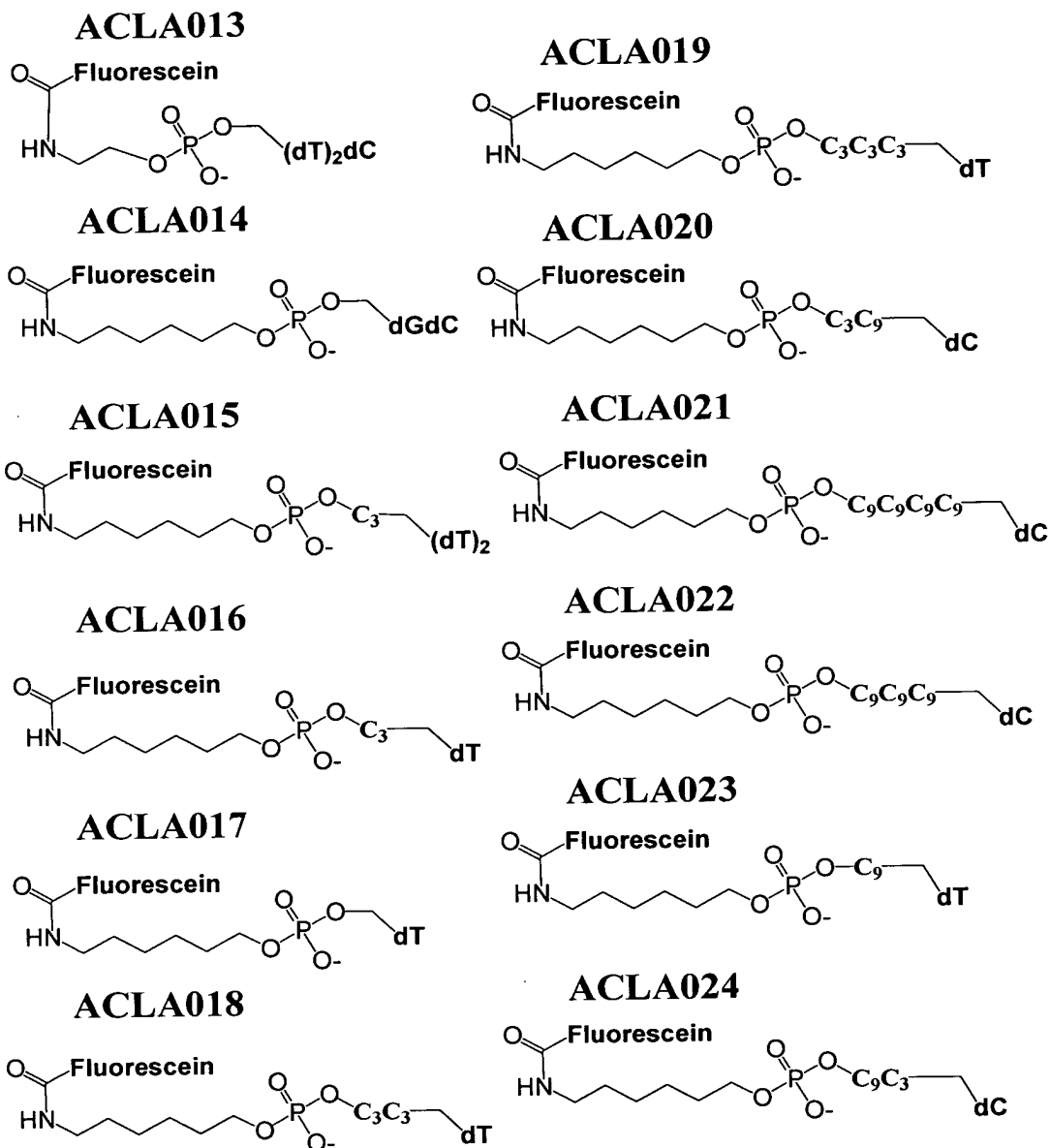
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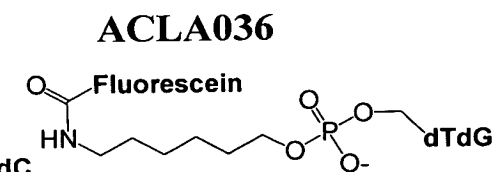
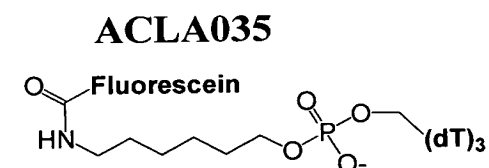
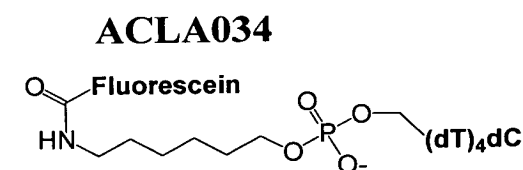
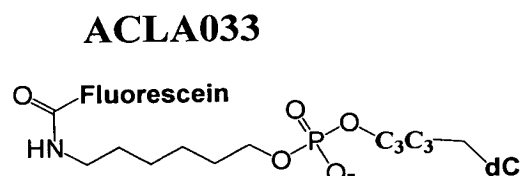
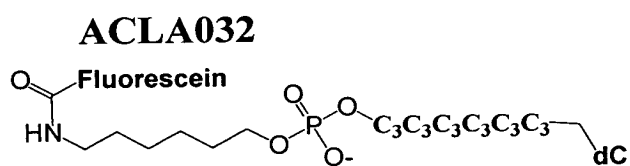
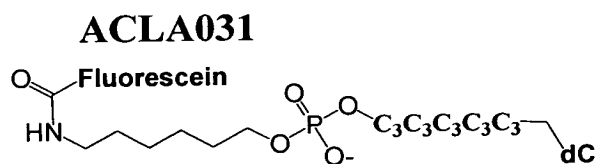
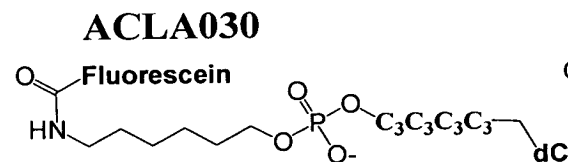
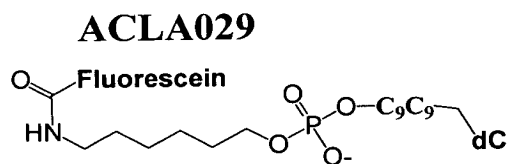
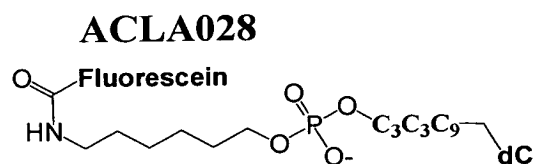
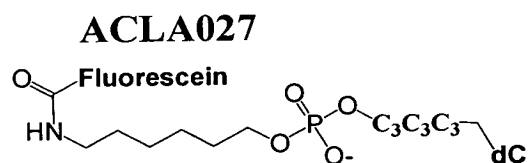
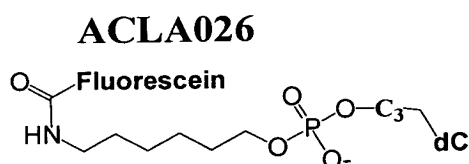
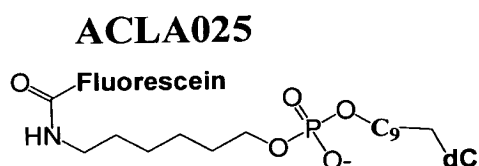
**Fig. 16**



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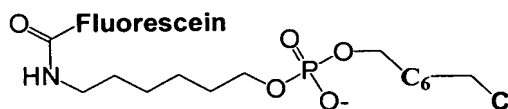


**Fig. 17B**

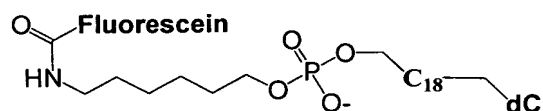


**Fig. 17C**

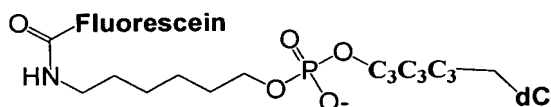
ACLA037



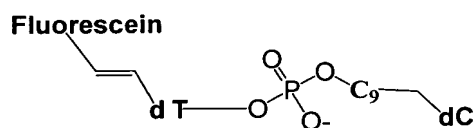
ACLA038



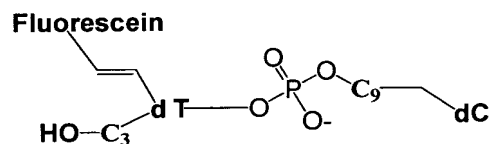
ACLA039



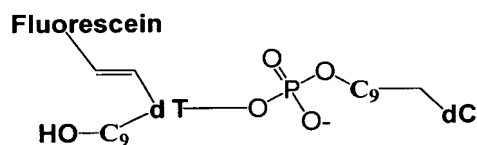
ACLA040



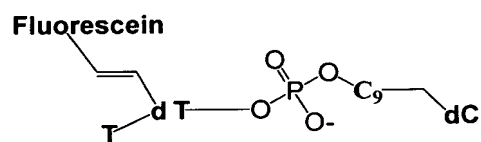
ACLA041



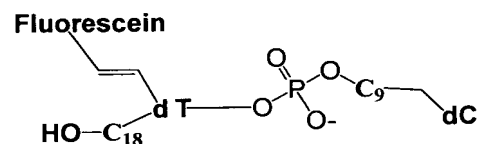
ACLA042



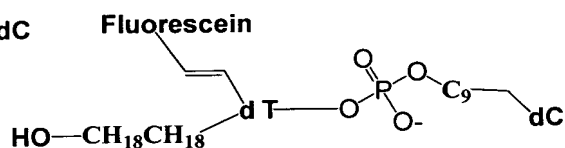
ACLA043



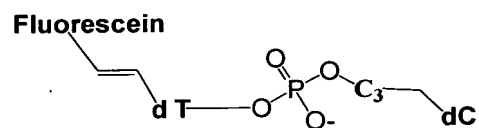
ACLA044



ACLA045



ACLA046



ACLA047

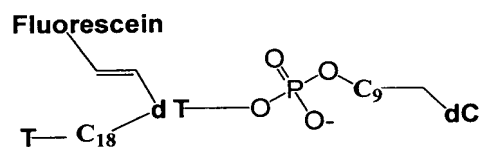
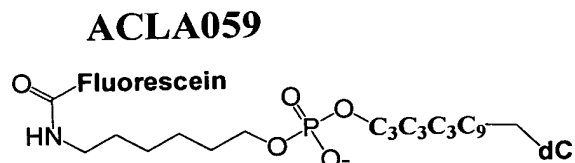
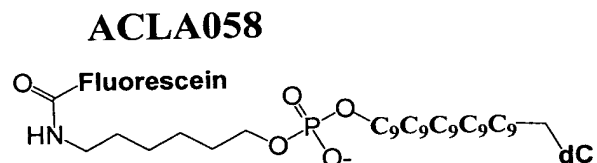
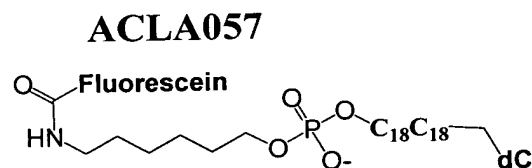
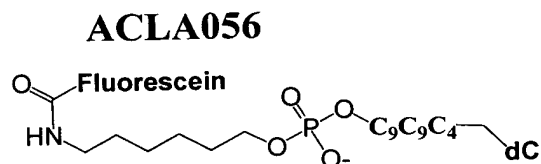
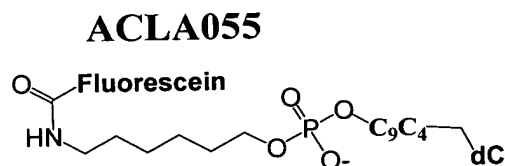
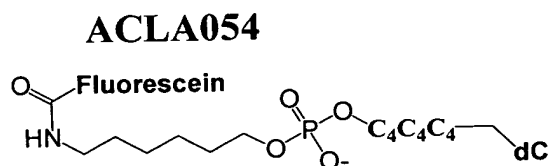
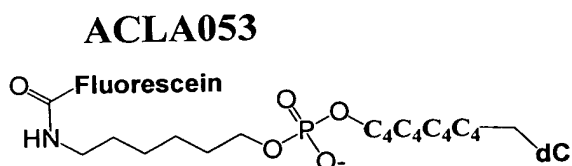
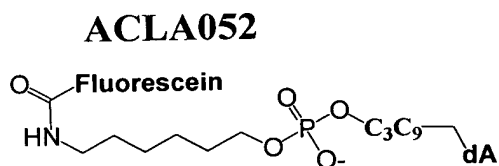
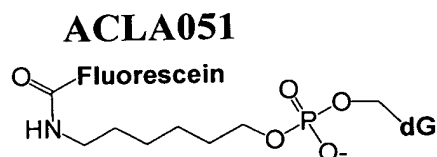
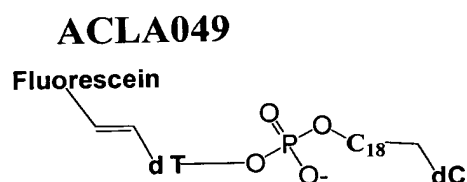
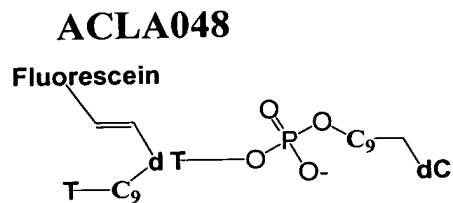


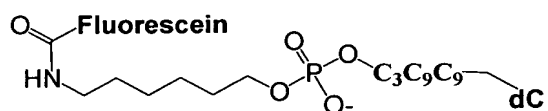
Fig. 17D

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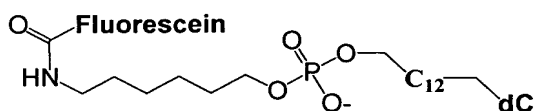


**Fig. 17E**

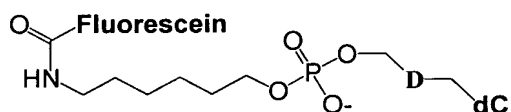
**ACLA060**



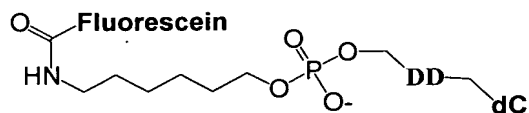
**ACLA061**



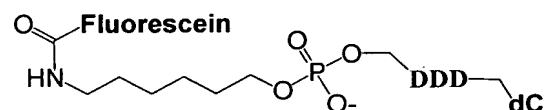
**ACLA062**



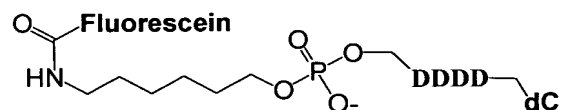
**ACLA063**



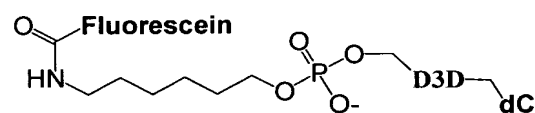
**ACLA064**



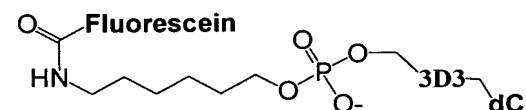
**ACLA065**



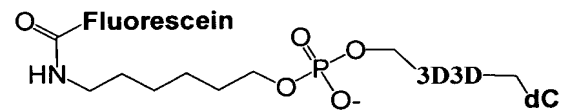
**ACLA066**



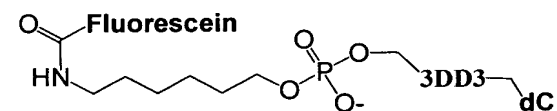
**ACLA067**



**ACLA068**

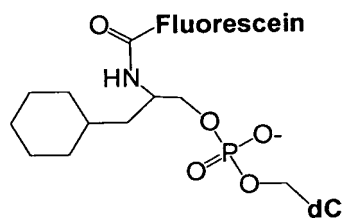


**ACLA069**

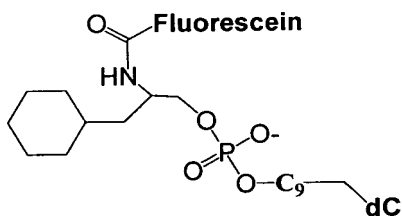


**Fig. 17F**

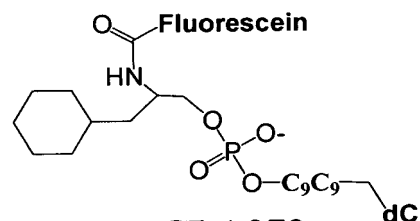
**ACLA070**



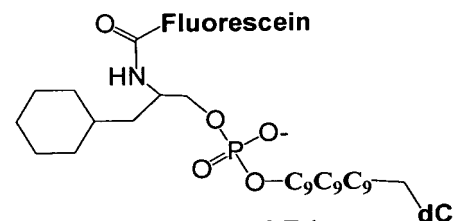
**ACLA071**



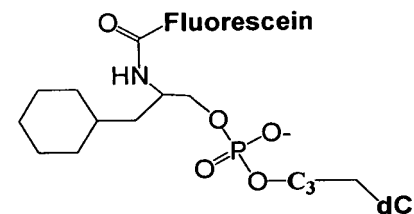
**ACLA072**



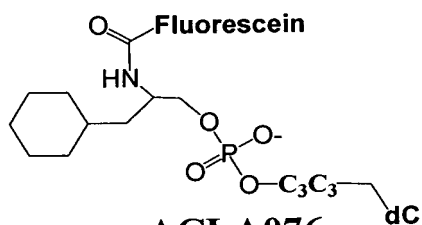
**ACLA073**



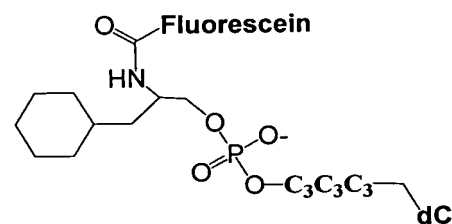
**ACLA074**



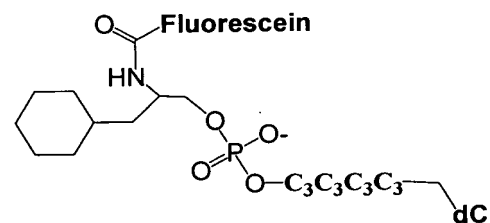
**ACLA075**



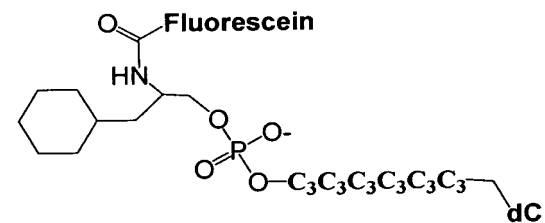
**ACLA076**



**ACLA077**



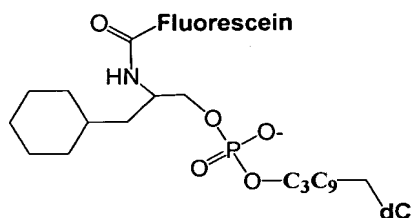
**ACLA078**



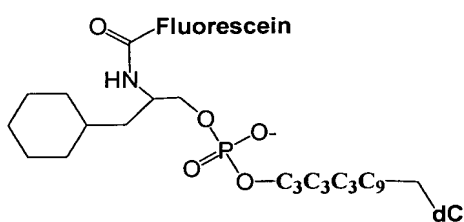
**Fig. 17G**



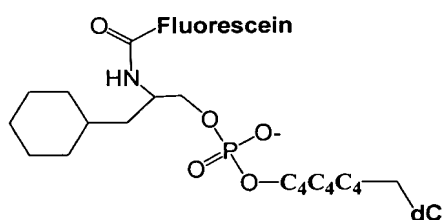
**ACLA079**



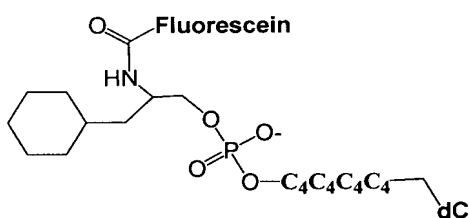
**ACLA080**



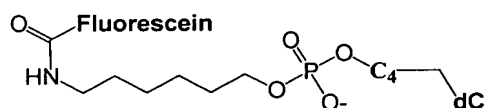
**ACLA081**



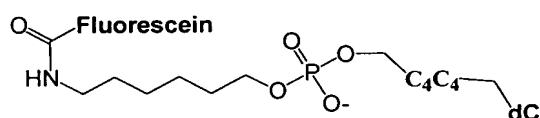
**ACLA082**



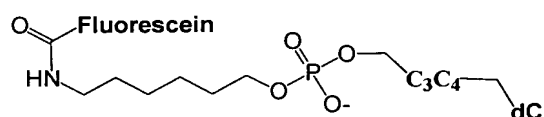
**ACLA083**



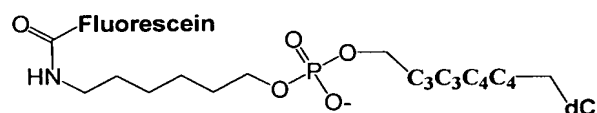
**ACLA084**



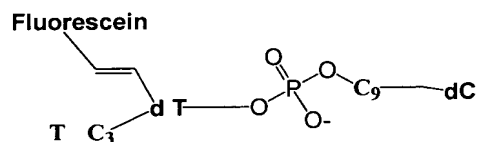
**ACLA085**



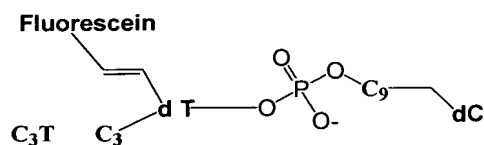
**ACLA086**



**ACLA087**

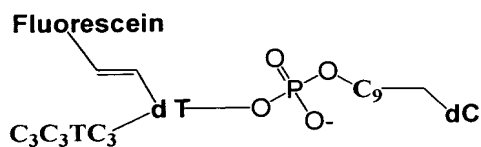


**ACLA088**

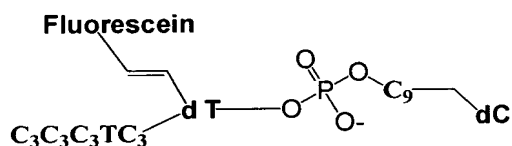


**Fig. 17H**

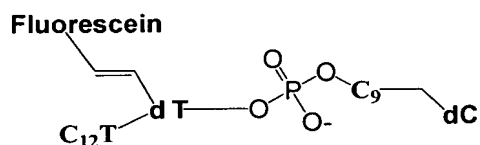
### ACLA089



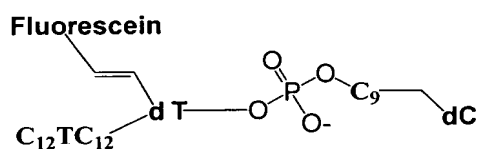
### ACLA090



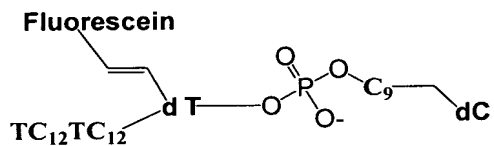
### ACLA091



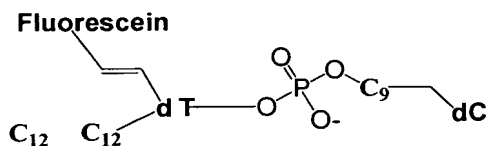
### ACLA092



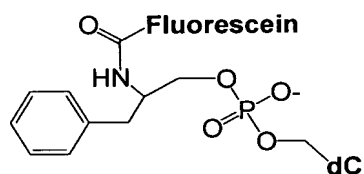
### ACLA093



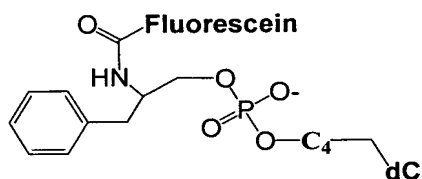
### ACLA094



### ACLA095



### ACLA096



### ACLA097

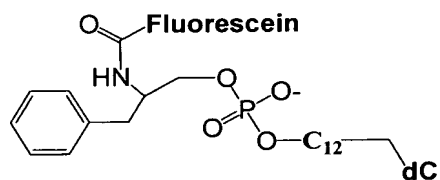
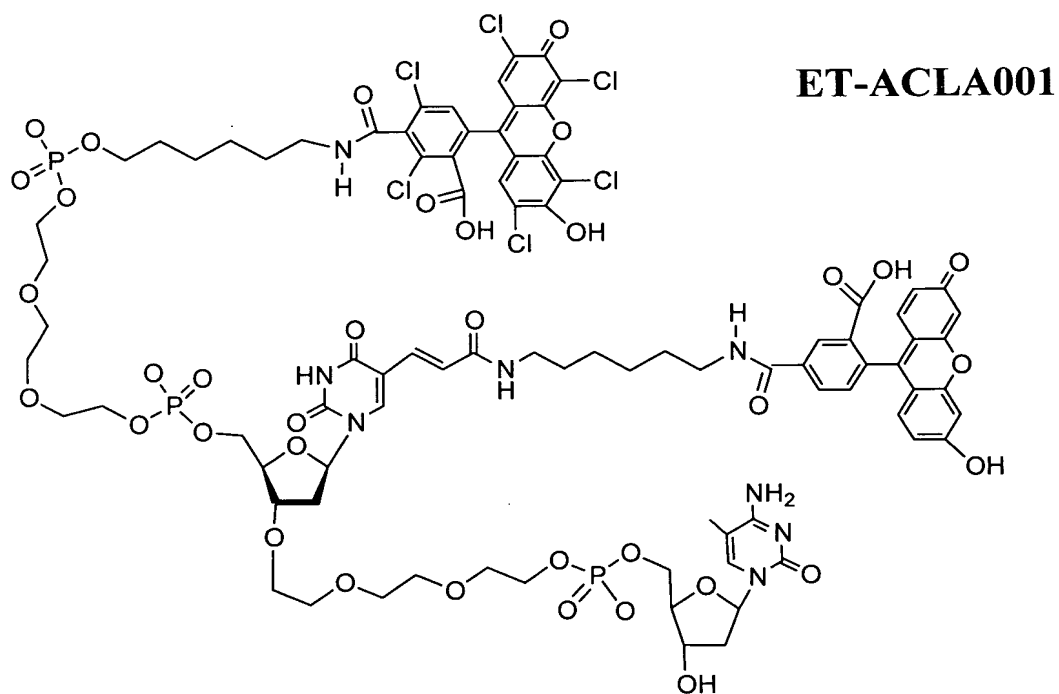


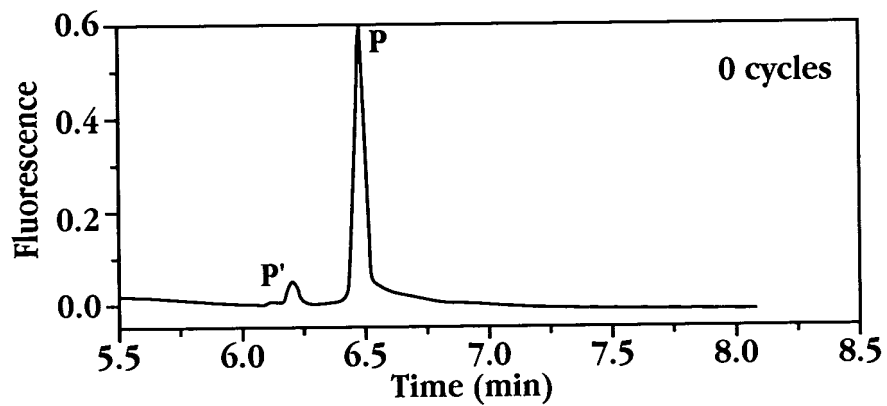
Fig. 17I

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

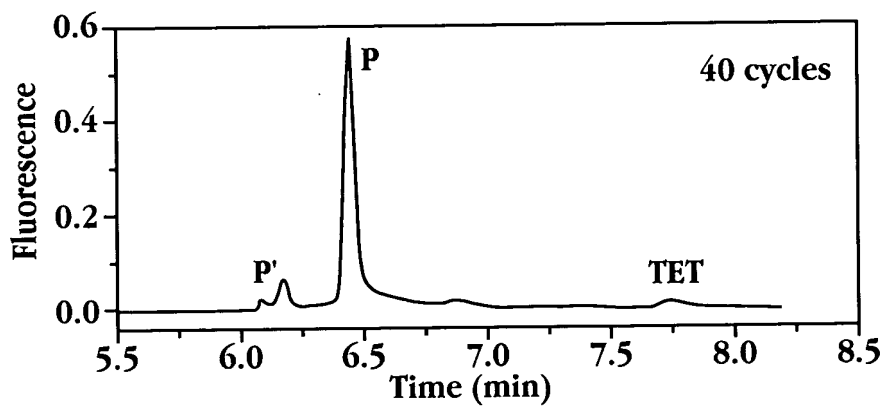


**Fig. 17J**

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

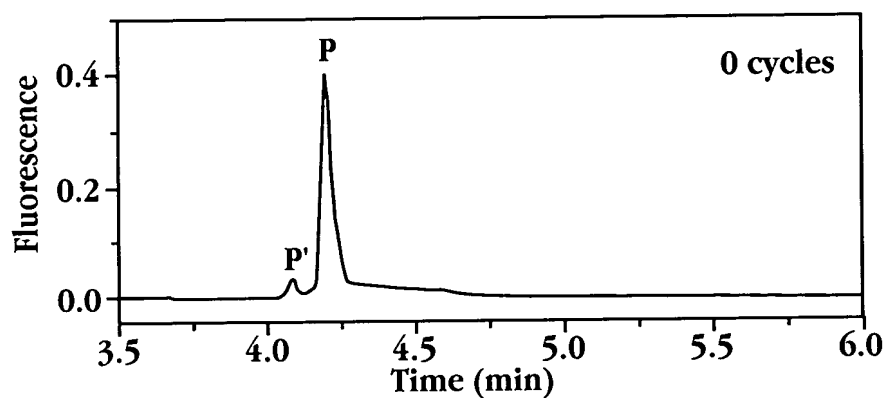


**Fig. 18A**

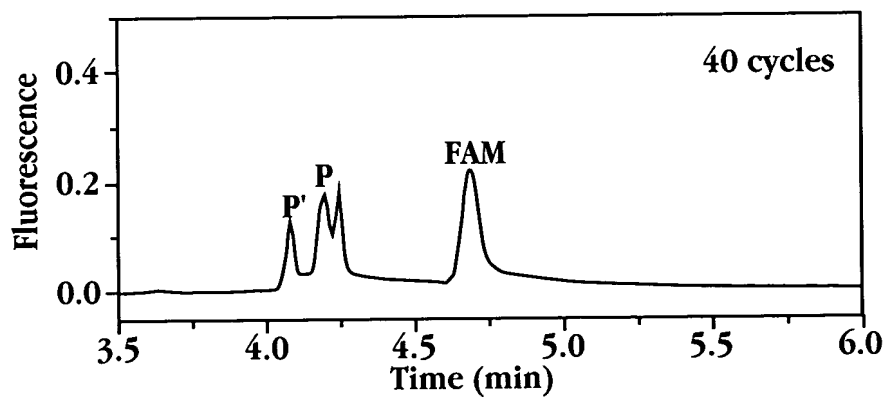


**Fig. 18B**

APPROVED	O. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

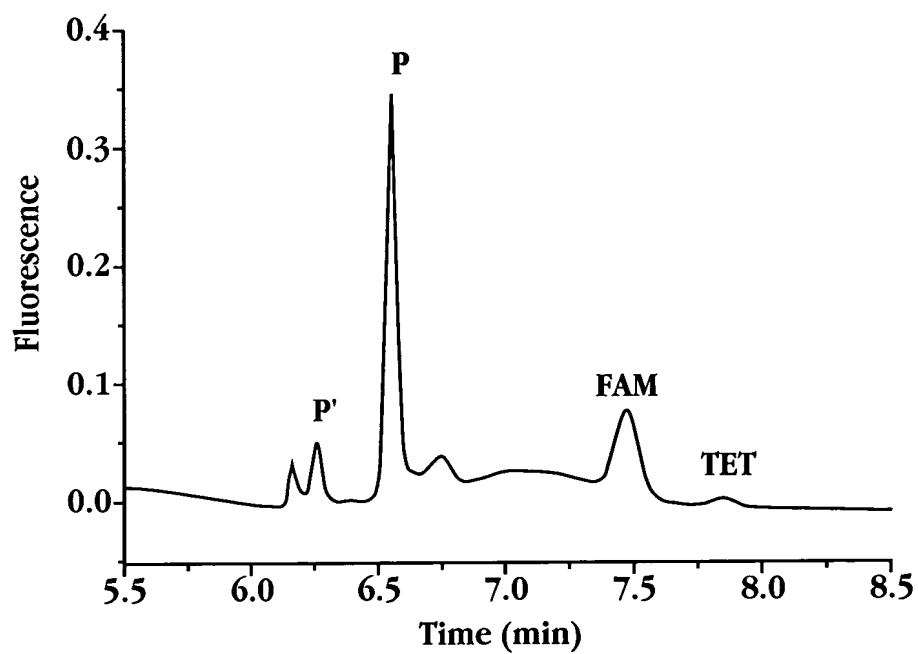


**Fig. 19A**



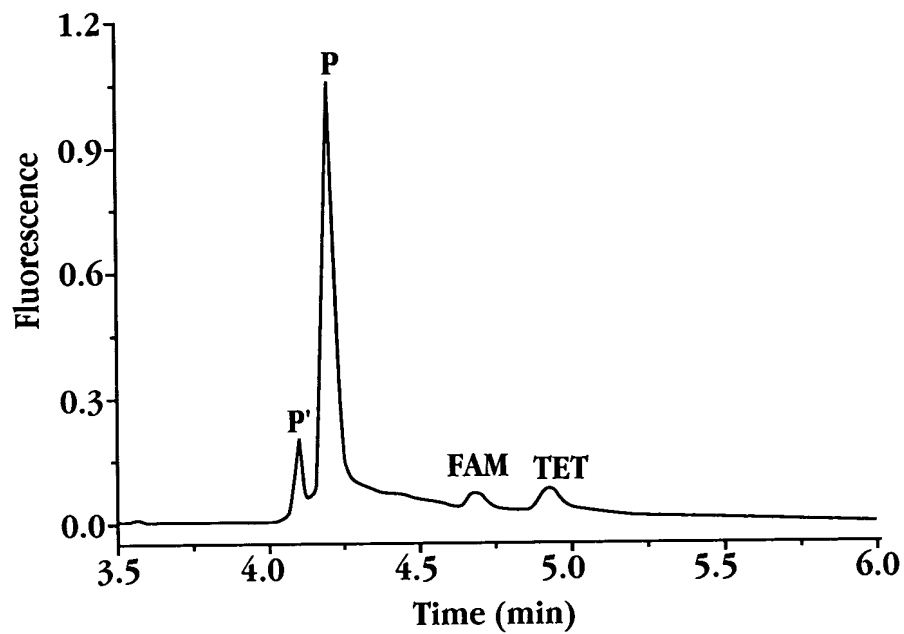
**Fig. 19B**

APPROVED	O G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

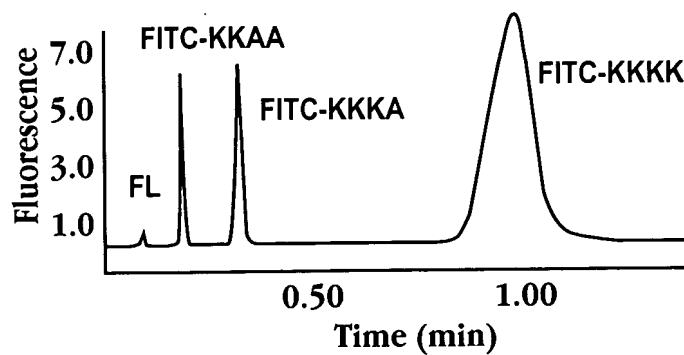


**Fig. 20**

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

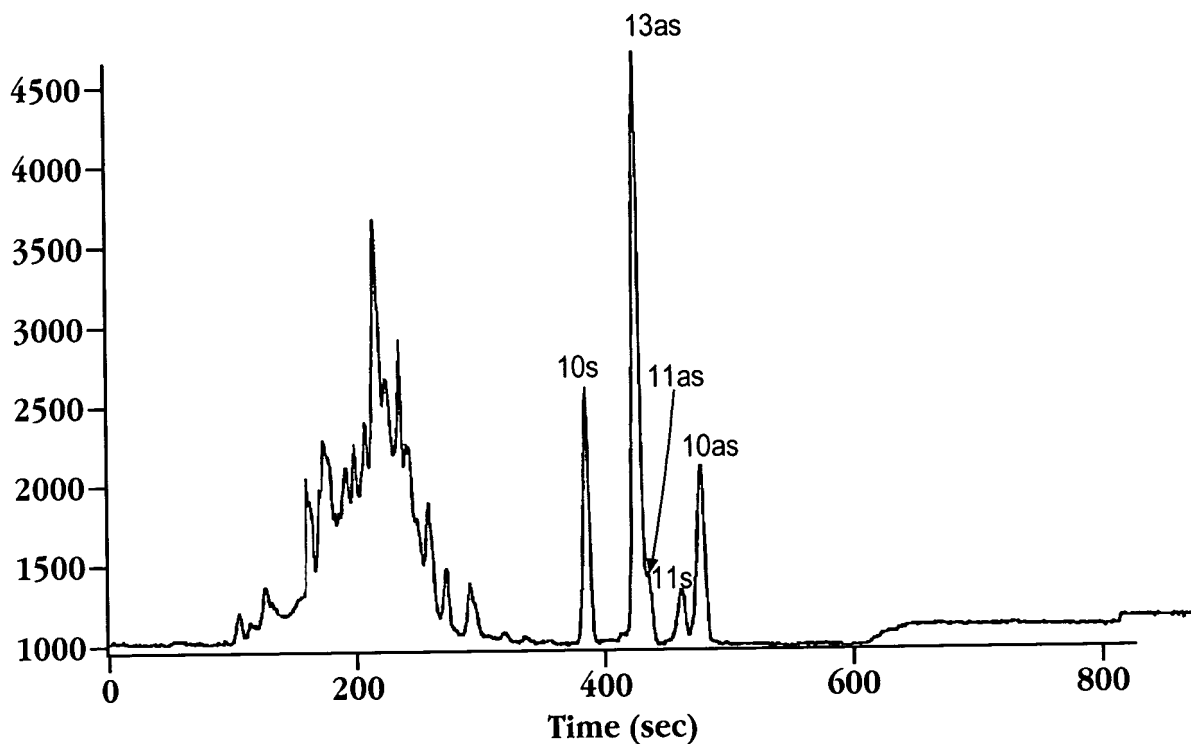


**Fig. 21**

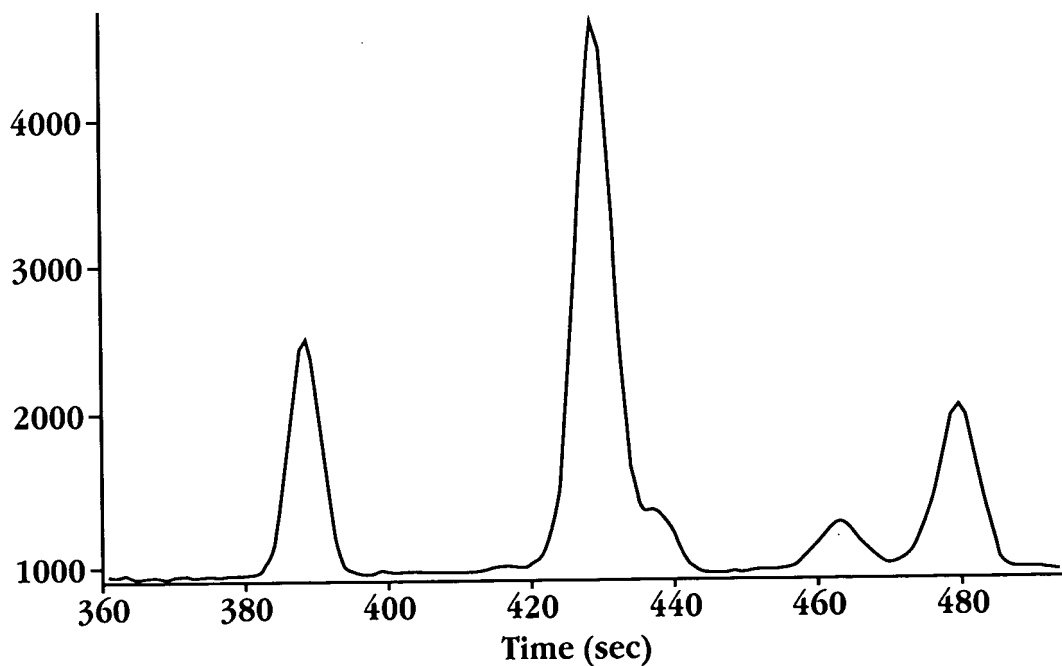


**Fig. 22**

APPROVED	O G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		



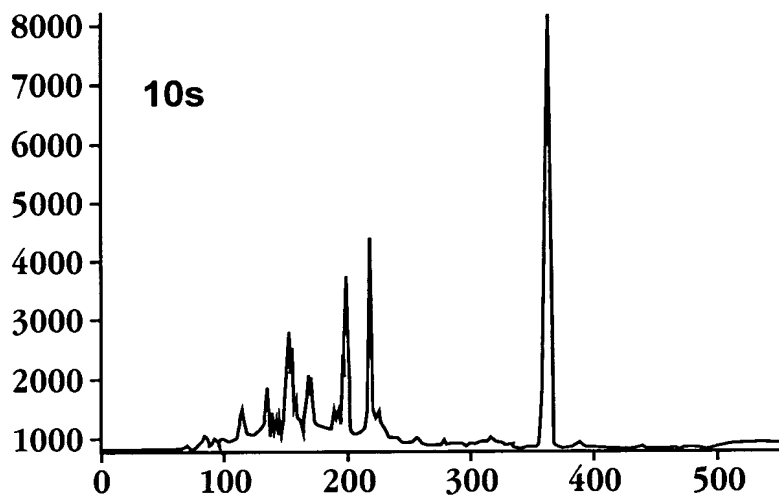
**Fig. 23A**



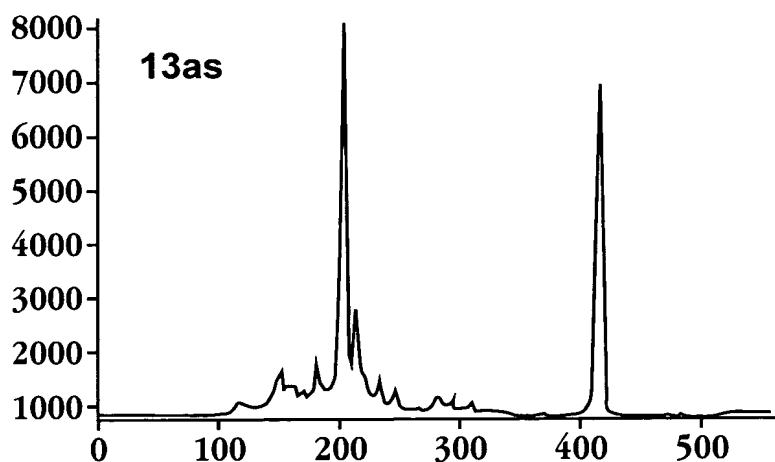
**Fig. 23B**



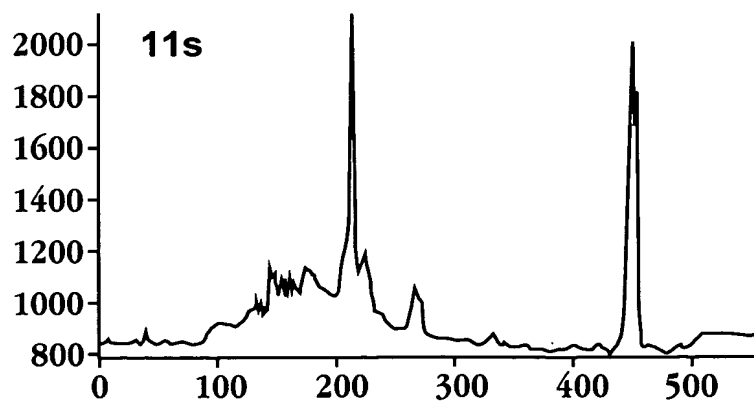
APPROVED	O G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		



**Fig. 23C**

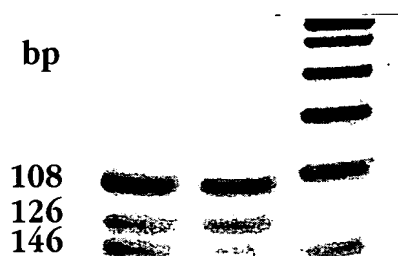


**Fig. 23D**

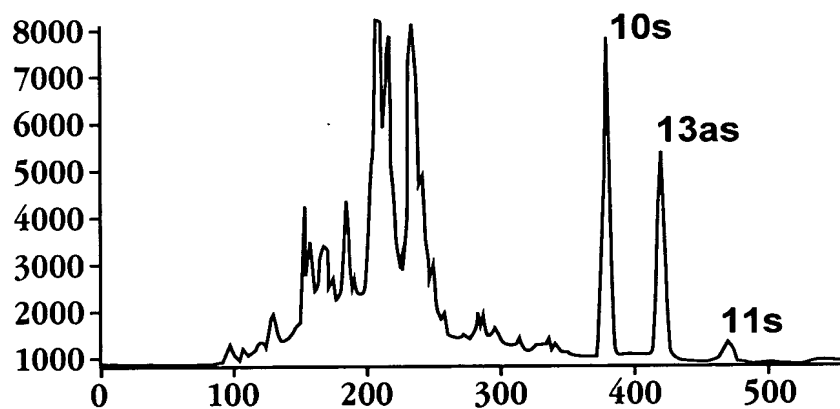


**Fig. 23E**

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

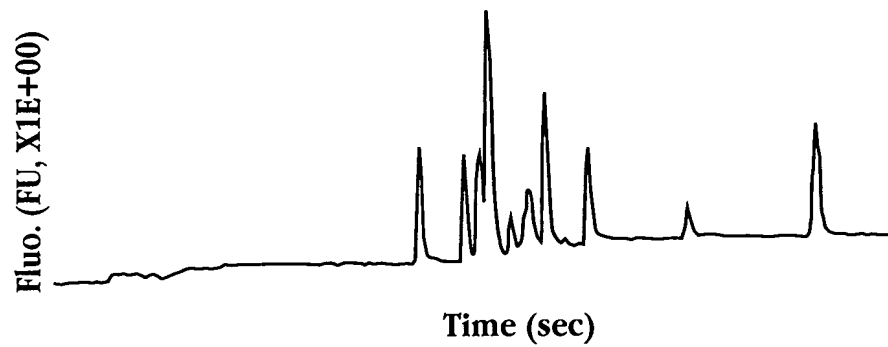


**Fig. 23F**



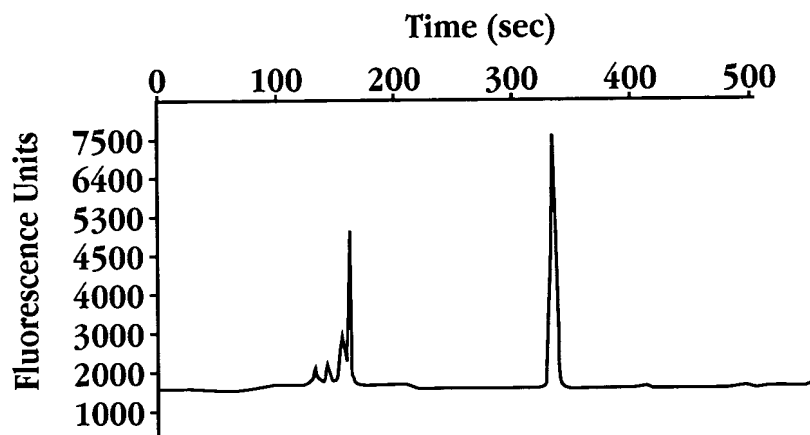
**Fig. 23G**

APPROVED	O G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

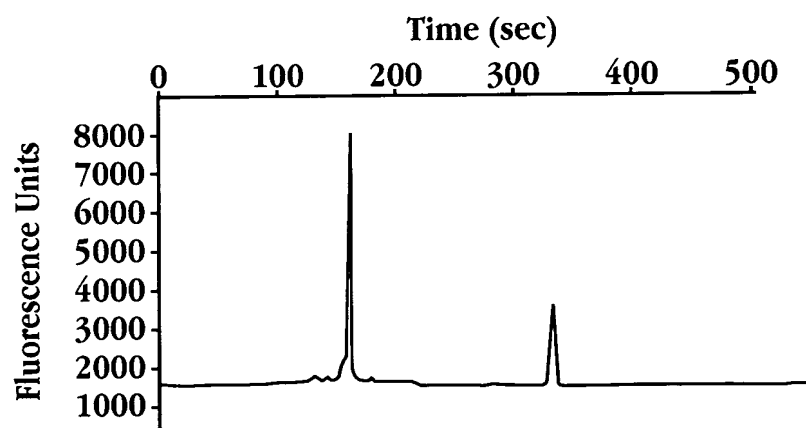


**Fig. 24**

APPROVED	O. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

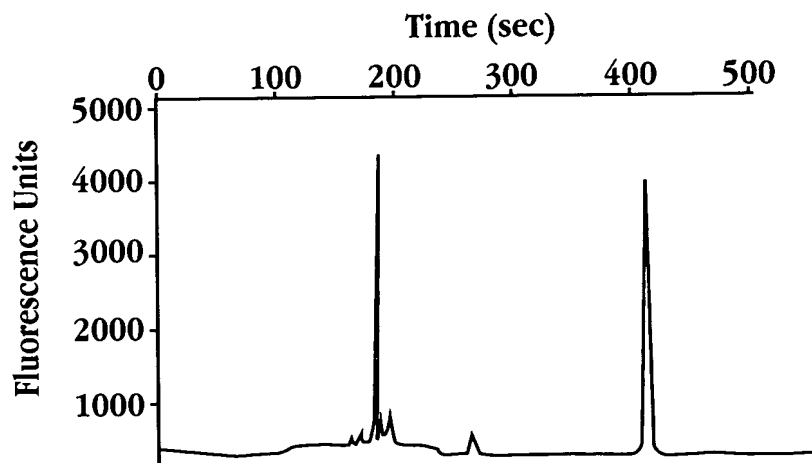


**Fig. 25A**

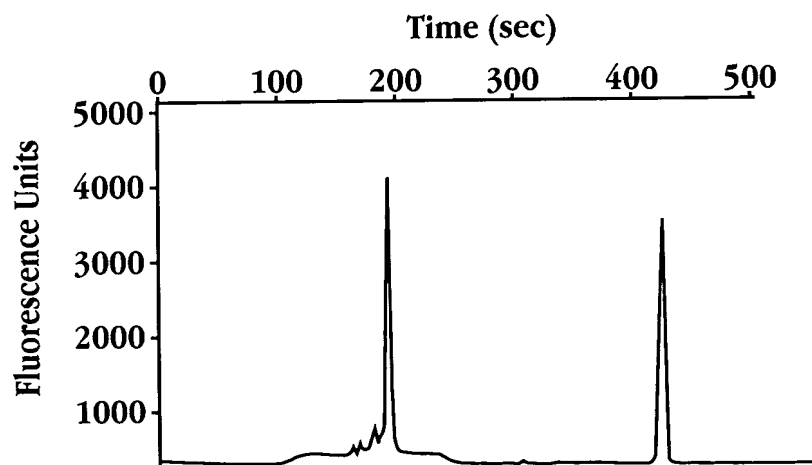


**Fig. 25B**

APPROVED	O G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

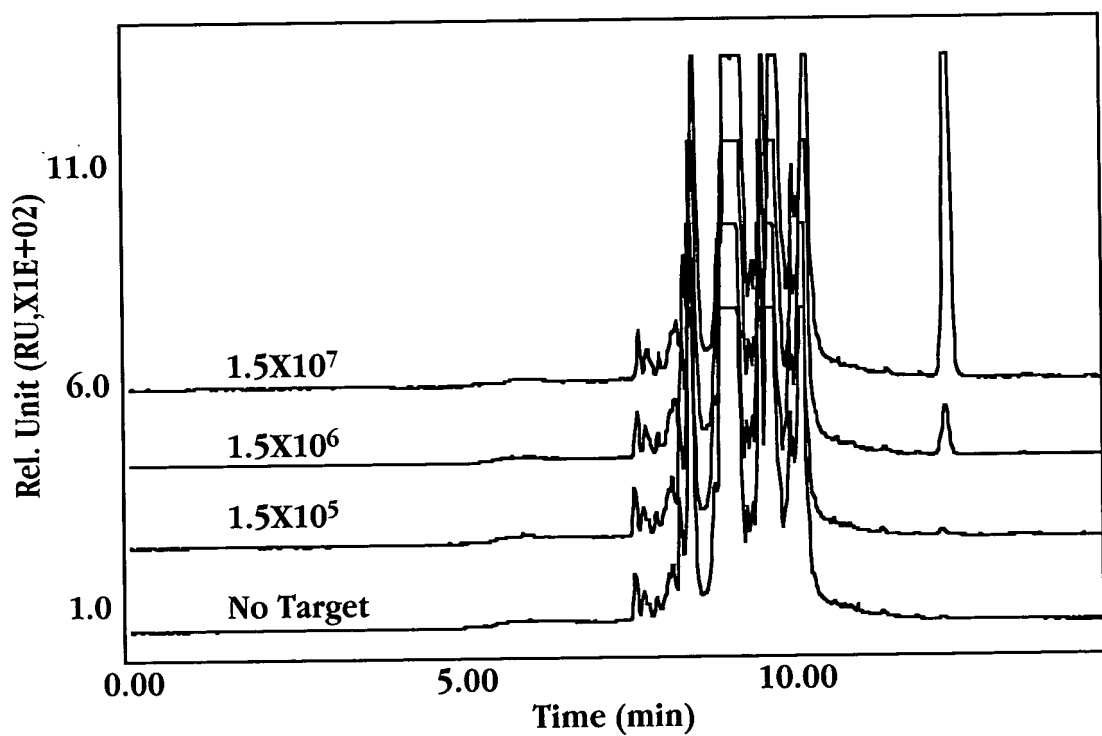


**Fig. 25C**



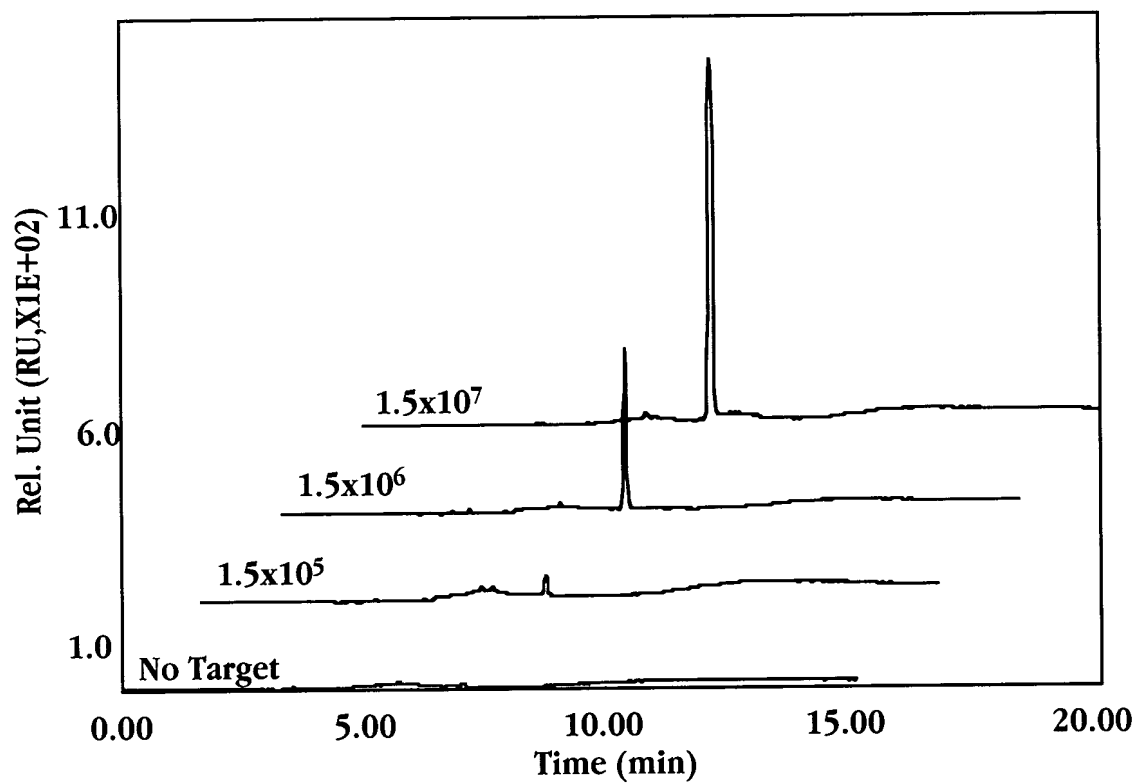
**Fig. 25D**

APPROVED	O G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

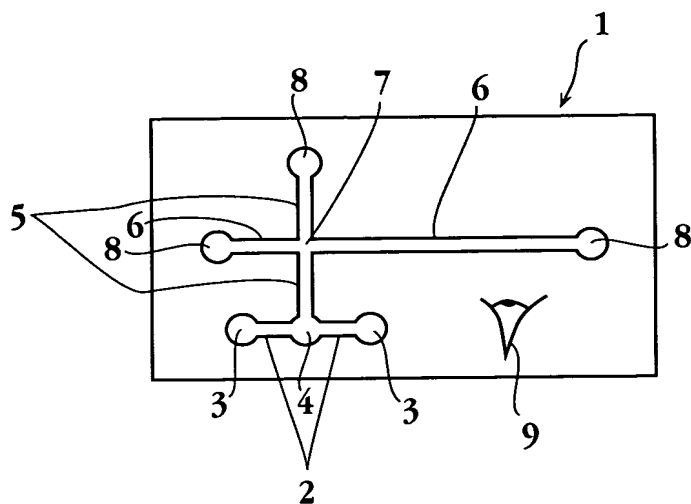


**Fig. 26**

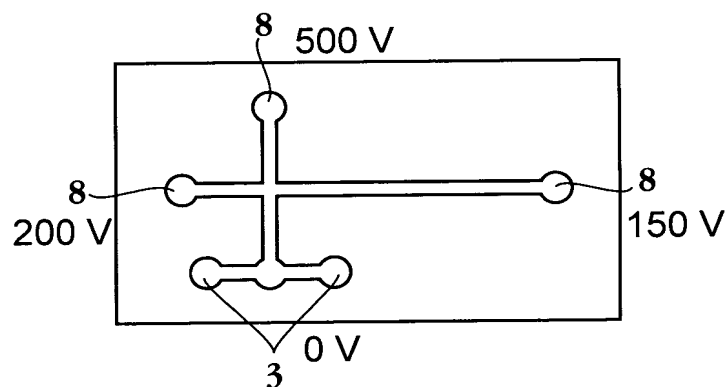
APPROVED	O. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		



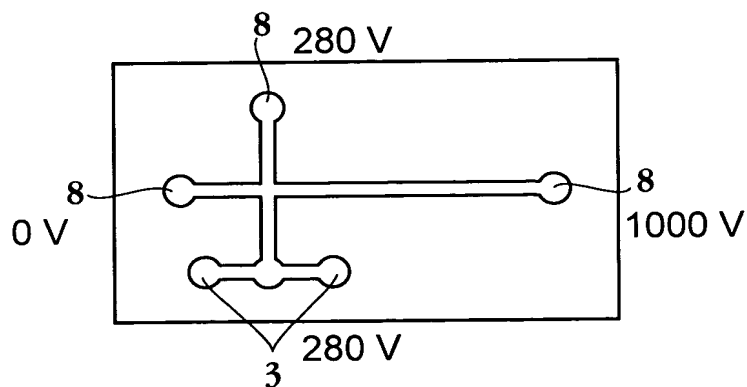
**Fig. 27**



**Fig. 28A**



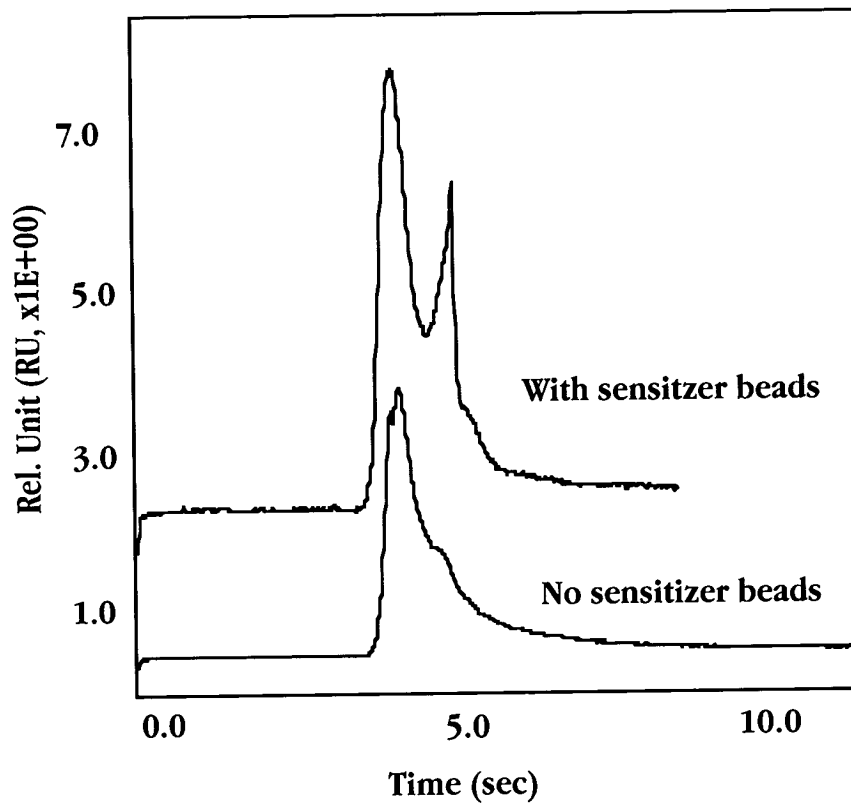
**Fig. 28B**



**Fig. 28C**

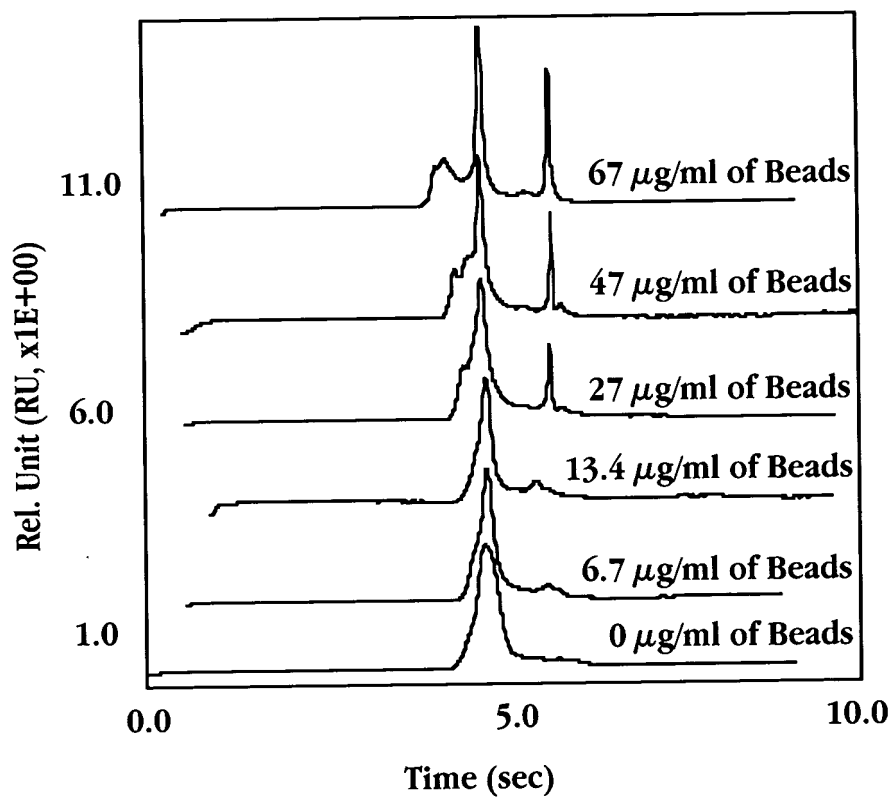


APPROVED	O. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		



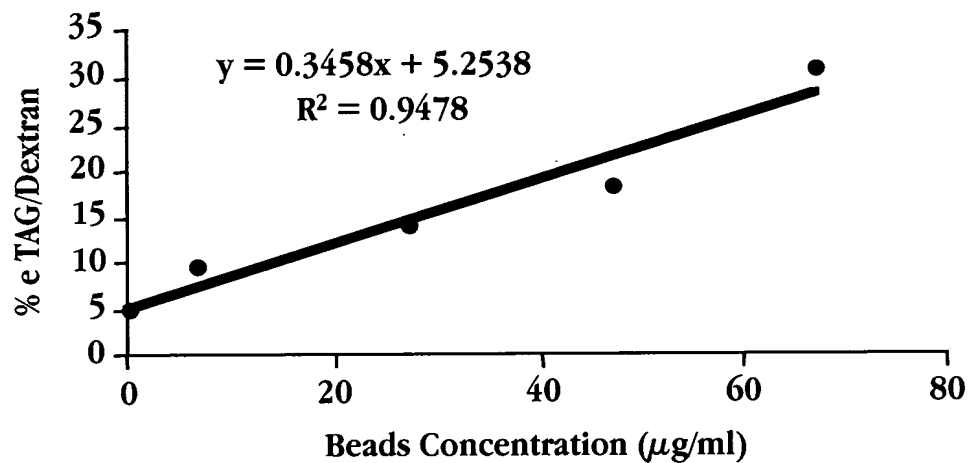
**Fig. 29**

APPROVED	O. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

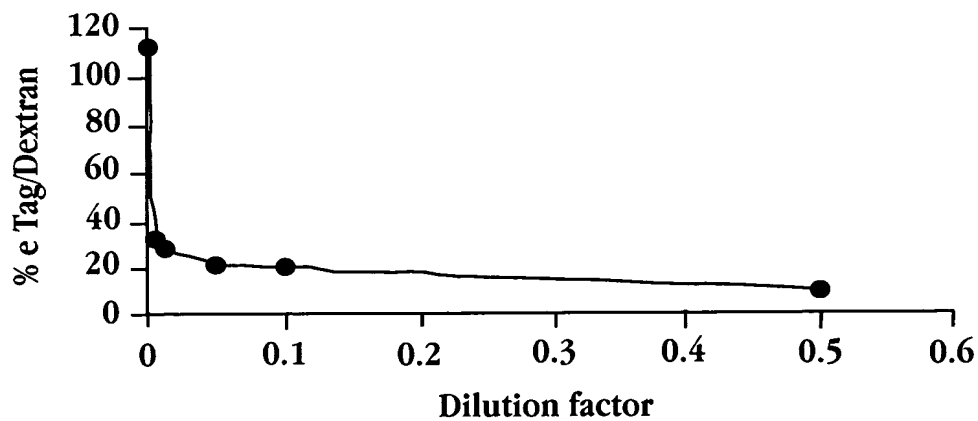


**Fig. 30**

APPROVED	O. G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		



**Fig. 31**



**Fig. 32**

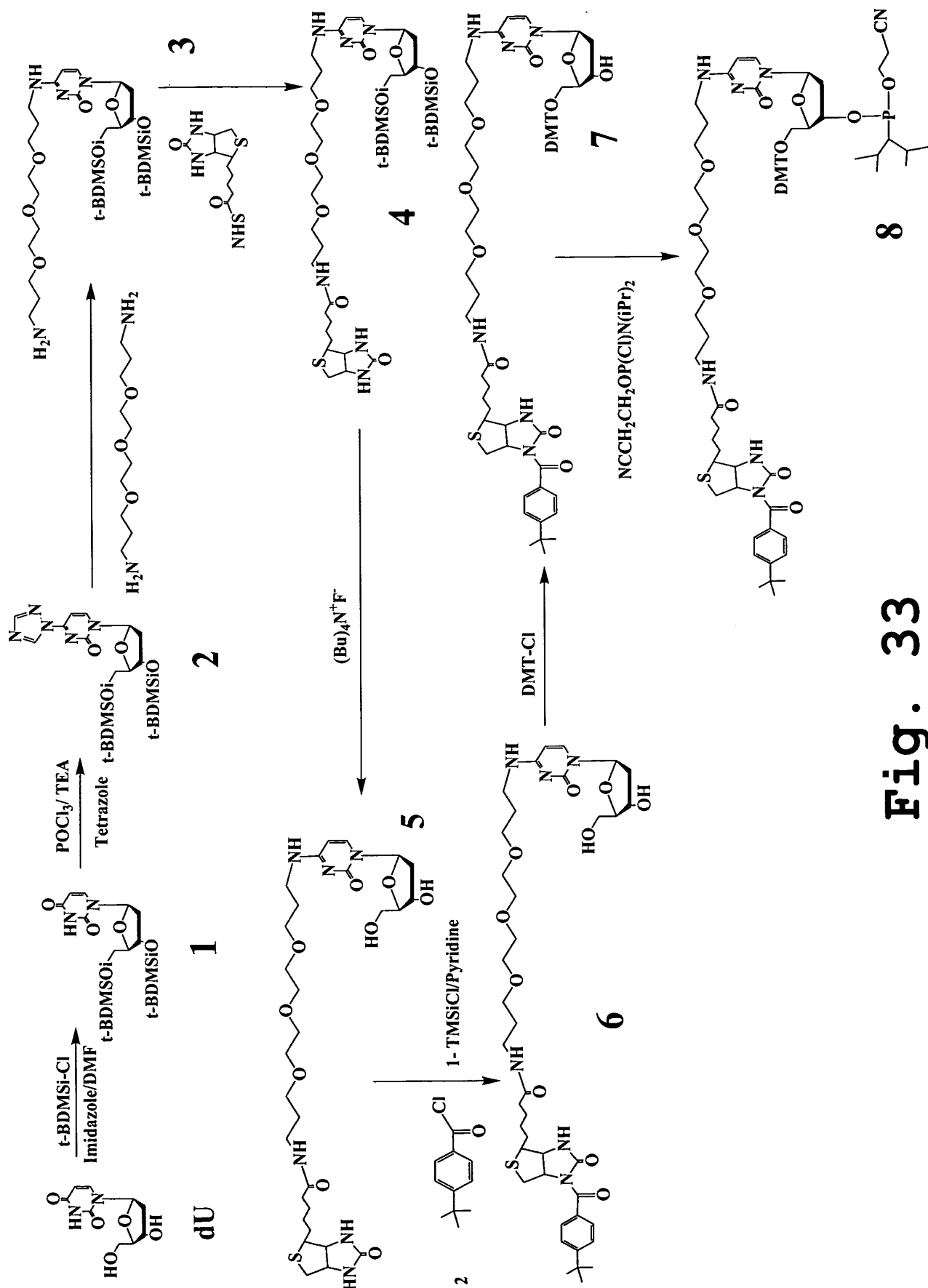


Fig. 33



**Fig. 34**